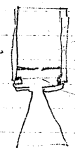
Notebook, PN-06-00-00

This undated pocket notebook was used by Edison, probably during 1906. It may have been used at his winter home in Fort Myers, Florida. Included are descriptions and lists of experiments to perform, including work on phonographs, storage battery components, electrical rectifiers, telephones, thermocouples, and "wireless." The entries contain Edison's speculations regarding magnetism, the chemical properties of various metals, and the nature of electricity. There are also notes on the "Edison effect" and on work by Michael I. Pupin and other scientists. Among the employees mentioned in relation to individual experiments are Charles Dally, Otto Groethe, Walter E. Holland, and Frederick P. Ott. The front cover is stamped "Ledger." The pages are unnumbered. Approximately 120 pages have been used.

It is probable that reversing how water and loose water in place in that straight part leading to funnel too at close chimney was length to form a Vortex

Perhaps a ~~cot~~ tube with diaphragm at bottom thin.



Dia chamber filled with Rosin & Iodine Colored iodine

glass piccolo produce Vortex

Rings more or just pressure to form Lens

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or Battery phased by a thermo junction of Oxygen = K ions + Sulphide + K ions + Oxygen electrode nickel or both sides.

The temperature right is close at 7/8 + fall below running out nickel gas on side side least +-

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If If ions are and when then really there is no generation in a battery, or of there is to at junction of ions + O of Nide

---

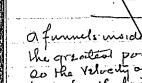
In a funnel to break up the rings use 1/4 inch screen make every 3 inches -

A B C D E F G H I J K L Mc M N O P Q R S T U V W Y Z

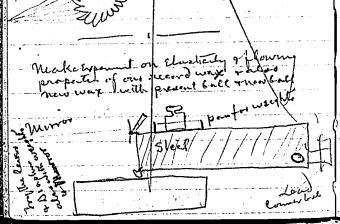
Try a funnel like drawing 3" extending out 1/2 inch —

Running fan out giving a Vortex to air

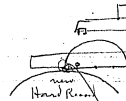
A funnel's inside surface should have the greatest possible friction so the Velocity of the wave slowed so by far the fastest in center in order to get that when it goes in almost at edge then when it goes in free air that a portion will be deflected laterally = this apparently is the secret of the funnel - perhaps that turned on threads like a screw towards nothing but wheels after the funnel for receiving a diameter of 2 or 3 or 4 inches or of wheels is not given the corrugation



Make experiment on elasticity & flowing properties of any record wax & shape new wax with present ball & wheel



when & when make at once



Diaphram 1.25 also 2" also 1.8" dia.

Steel 1/2 circle levers weight holding on Ka card adjusting & steel 0.03 dia — 3 to 1 drawing then 4 to 1 —

Try alloy & that will stand it bring to red hot or higher & drop in cold water. To put stamm in them notice if they flower or when flowers & if some except that don't flower do so when this treatment.

In trying magnet & alum in helping of alloys a new firing method that then nearly to melting point & drop in ice water see if they will then be magnetic & mean closed rings.

Make 1/4 inch Recording Ruffs then will cut a track 80/1000

Twice & sides well show Elegantly & Comprehensively the shape of the waves

Rod to shape Lever to tighten

Plate to tighten —

Cutting

C D E F G H I J K L Mc M N O P Q R S T U V W Y Z

Celluloid mica glass cell

Small Cathode 1/4 inch

3 or 4 inch anode + 1/2 or 1 or 2 or 3

plating solution — Rep Salts

heavy current — Dry Slides

for fluorescence from Rays

Coming from the small pole

chloride acetate — oxalate

+ Ferrocyanide Hydr — nitrate

platinum + gas time — there

certainly should be a tremendous

stress on small electrodes

in glass globe filled with

perfect vacuum, Elements or

X ray Cell — using photo

plate & slides & find fluorescence

perhaps tiny — should be very close but

not so close as cell — speak —

Precipitate Tungstate Ca with

1/2 % of all kinds impurities

— equals size of impurities

fluorescence

Tungsten dioxide of X

Stop stop

Stop stop

Put funnel on the

Have X closed at top with metals

delicate loose membrane — use

Chlorine Lycopodium, Carbonate, Iodine

Smoke, Chlorinous smoke — smoke

possibly ammonia smoke or Ammonia also

Try disc with .005 piece Pt between to stretch it to

limits of elasticity both ways

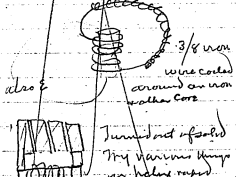
glass chin seemed at Cooler

Immediate return of the Mix product by the chemical Reg. process with Cane KOH, purpose = 1 part of 2 cell process of KOH, = use of Cane sugar KOH, Have made 0 of 4 gm of it – the results –
Try 3 more with Thermos not control with me
also other Mix products – see their color etc, properties – the results or Mix is not alive in battery

Edison effect
Try 2 in – 1 grid on center wire +

By making aluminum Cathode having pores and having Red dermal to penetration and then dissolve host, around in Sacrificial, the results and

see if Bing chally acts like a Rectifier with Palladium mandrill or alfin



Try various things on helix, repeat alternate 8

Condenser made of silver-plated Copper foil + Zinc or Al foil, see if by chemical action can get capacity down – for use of telephone modulation also Tesla

Wind a helix

send current with
way – diff in velocity will produce results
Try lief things – helix – use 38 wire –

Don't think Prop in thing right – winding of with field
Line Try telephone with unequals strings not in proportion the unequal – the directly tune to the
Condenser Capacity – the length of wire or chemical
gap in unequals etc – condenser pieces of wire
Can test Condenser – Knife in bridge by
Chemical action of Thermos – Acute may distill
Pages 10 way – line Condenser – Condenser
perhaps – better surface – Condenser – Line
may answer –

probably considerable amplitude is
lost to disappearance chain by flexing
the shaft – while testing the flexing
of lever test flexing of shaft +
also record work double –
Could stop flexing shaft by
mandrel rod + stop rod by
stiffer material or thicker. Wheel by
to increase volume to double it
have double pressure on Record
+ Mandrill – see what note
home shaft gives also record

Bunsen

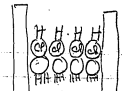
Lecture

Specific H. & known the highest, pt. Pb 0.0304,
30 times more
almost be inclined to expect little —
Paraphrase to Pb. the +1 Pb — cannot be free in
Combination in H_2O or OH.

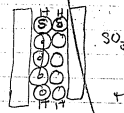
Intensely combustion for dilute orange Expect
Sulphur — Carbon — Expression blue
highly than any — potassium —

Light telephone (a piece rubber attached to
twice its length shortens 1/10 of the
length by a break of 50 - Cent

further thinking shows hydrate theory good
but Metals + Hydrogen of the molecule set
Numerous parallels with Electrolysis —
Series of metals centers being the position of
the radicals of a compound — the metals
+ Hydrogen / when a radical combines at one
End then on) metal at other limits a
tempo vibration — in fusion or kinesame
action takes place without water

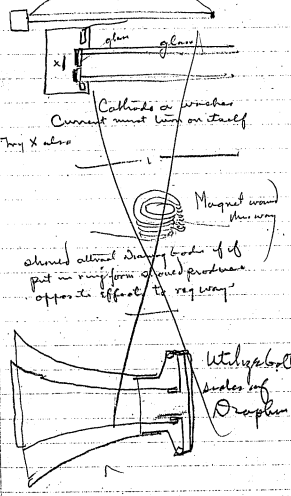


Vortexes so to speak
Radicals go one way
Metals the other —

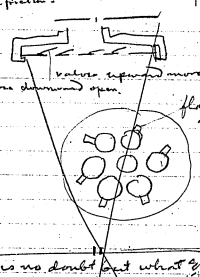


Possibly an anode made as a tube
1 foot long or a cathode, manhole
on outside, + float anode or cathode
might show something on the float
by blowing deposit

I J K L Mc M N O P Q R S T U V W Y Z



Pressure: Anthony explains it in Experiment Book. The bigger the pressure the smaller may be the valve. Hence at instant of mach dia + 2 lbs it can be 1/4 dia + 32 or perhaps 40 lbs pressure for valve problem.

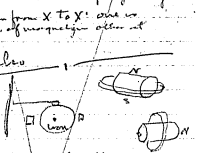


There is no doubt but what Emg action goes on in the pattern as probably increased by diminution by pressure. Variation in power of $NaOH$ bottle H_2 on discharge power $NaOH$ test T. fill with H_2O. If it leaves to dry out actually have gas content or change $NaOH$ leaves to get dry. Bigger the pattern probably have more H_2 + shell [illegible] that could be put [illegible] KOH wind up nothing. Check that imagined pressure or nothing. Check that imagined pressure or nothing. Kill action around help Cathode.

Hz at Conductivity from N to S in iron & all highly magnetized & weight

to low - better than from X to X' one w parallel to field of magnetization either at right angles.

Conductivity also



Magnetized across - the allowing set of freedom changed mechanically current also allowing

If magnetism of iron w a function of variable elastically make some CP CoFe Ni by rolling - by speed by flame - Simultaneously Magnetization - Co ought to move away

If Magnetic metals are so the strength proportional to the oxidizability then should be Mn Fe Co Ni in scale or of capable higher oxides than Scale is correct following up C Iron Scale is correct

Electrolytic series same

Ability to form Sulphides Ni Co Fe Mn the reverse

Solubility of chlorides Fe Ni Co Fe Mn

Next p

atomic weights Nearer equivalent labels,
Mn 53.90 Cr is 52.01 Va 51.25
Fe 55.91
Co 58.88 } some doubts about this -
Ni 57.93 }
Sort of proto ox in Nitly all -

If atomic weights is the reason the scale should be Vanadium Chromium Mn Fe Co Ni -
The difficulties of preparation in metallic form are only that scale alters - affinity of Oxy in proto oxide is common.

New Theory iron has the least resistance for E if all metals on a rise of full current showed have lower resistance for high frequency than Copper = its only on Circulating Current that it has higher resistance than Copper If we have induction Coil w the Copper Core there is focused but only to 120 of Copper. May the Cu Currents high rate to die out in second but if iron the focused Ckt is encompassing have less of first & gradually rises so low as greater than Copper.
or the diamagnetic of Copper is only slightly changed whereas iron diamagnetic is enormously changed
Lateral Theory Most probable - Dyamagnetic is a powerful Ext
Currents in iron are across the disk or molecules of Copper the currents are physical & around the disk of Cobalt enormous higher resistance, anything that will break up the Molecular orbit well

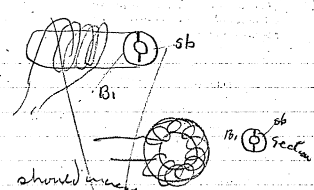
MC M N O P Q R S T U V W Y Z

make Iron Non mag — Mn & Ni do it
best & they happen to Go magnetic metals
very little heat is given off by these molecular
currents as their resistance is practically nothing
there may be no current at all, but a tendency
or stress upon which work can be stored up
but they act like circuits. The work
stored is against Elasticity of some
Kind in the molecule or distortion
of the Molecular Vibration altering
mean paths or orbits of circular

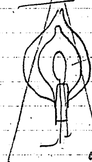
Rubber should act funny in a
helix —

any impurity in the iron will change
the Converting power & magnetism —
for better or worse — I think Mn is
the most magnetic metal or the apex
of the group consisting of Ni Co Fe Mn
Cr & Vanadium Ni Ti Va at Extremes
there should be found some alloy of
Mn which is better than iron —

Longitudinal Vibrations mechanically
Excited along a magnet wire
should vary the magnetism & throw
Currents into a secondary
Cold should increase Converting
power — X ray Striking ends
should increase Converting
power
dissolving by acids or plating
one end should throw oscillations
alternating into a secondary the
primary of which magnetizes
the iron — detect wireless
Resonance



should increase
Converting power
(I.E) act like a key to
rapid reversals from
action of currents longer elsewhere



a gas low
Vac - prevent
Carrying
outer tube
a Vac present
low heat.

a transformer under hydraulic pressure in oil should have a much higher Converting Capacity -

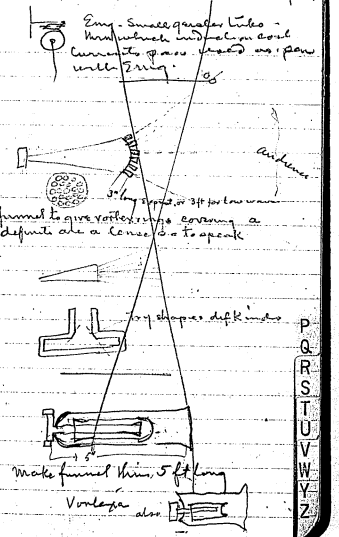
Converter about 1000 ampere 001 ohms resistance in Cold Salt water Shunt Compressor would give greater Capacity -

Measure Edison effect with Carbon and amp in lamp & galvanometer increasing Vac up to X ray vac tube & focus -
also Edison effect to other Globes wire but with platinum foil sealed on outside of Globe
Kept Cold or at temp lighting gives it -

The micro circuits or molecular circuits of iron in turning work against a new kind of Elasticity - material of the being Cohesion or physical & chemical it is against the uniformity passing in the Ether - The changes in dimensions of the iron by movement of the molecules Things moved there against Ether and this produces a chasm in the Ether of mag hindered the shape so Metamed the Ether chasm removes - we have a magnet as the Mag Could be demagnetized by waves thru a Vacuum. - This would imply that Everything is affected by the Ether but pressures unlike barometric pressures it is uniform throughout space or unequal strains is cause of fixed relative,

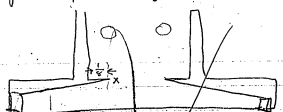
Possibly Sb mag make Cr or Vanad — Mag

Emy - Small gauge tubes - Mercury which induces an coil Currents pass proved as pass with Emy. 0.6



P Q R S T U V W X Y Z

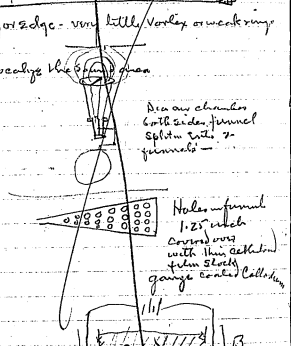
If vortex rings wants energy make speaker thus



Razor edge - very little vortex or weak rings

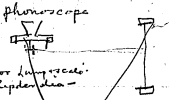
To localize this [illegible] place

Use air chamber both sides funnel split into 2 funnels —



See how long it takes current of 1 amp to phase letters on A also KOH + NaOH.

~~Sound~~ phonoscope



Mirror lamp scale. Reg Ripple line —

amplitude or minimum swing minimum strength was that recorded some note. also a scale.

Can then measure power if funnels of map out equipotential lines in a room —

Try greater electrolyte: 1/2 KOH, NaOH, 1 KOH in KOH + NaOH, in chg) Na 7 Fe

also discharge) Na 7 Fe always same cell — after charge which gives 85 amp off pull out + wipe quicker — soak 24 hours large quantity + see volume of [illegible] also with 20% KOH 10% KOH.

Use glass cell + after all mix come out that will — put in 200 mlg Sulphur — put in test to see if 5 blackness —

Set up 4 nickel tubes with Mallinckrodt sulph. iron + 250 mlg 5. also Dye with Brunolow. See how affects iron + [illegible]

R S T U V W Y Z

also Performs & put in + Reverse
second time changing KOH to elements
Sulphur acc of Sellers –

Reason why Superposition dont throw
sound waves into that there is no height
fixed mass, the compression is as close
to the source from that wave emanates
to any height, the pressure tending
to raise falls out at it rises minus
the distances around the Edges + so
no work is done on the diaphragm Except
what's done in non elasticity of
diaphragm.

Ferrous Sodium Sulfate was Reduced by
H mentioned by Shaffer – depth doubled increased
also without amplitude – for doses of oscillating
induction Coils –

Elec are waves in molecular orbits (communicate)
along wallet by compression or distortion
of orbits, orbits of cohesion so keep atoms
local moving always in the ether –
simple elastic wallet offer similar rest to
propagation of waves by distortion of orbit
Compound wallet offer enormous resistance
so much so that the wave cannot pass from
the local orbit at Boundary surface into
the other offer shrinking hence channeled system
of the wave to simple wallet, mass, V.

From in a large ether Stream wallet mass + extended
around the Universe – the atomic cohesion stress is
same as ether conduction but the wave is general
mass solution the current passing through
this directness measure + distance S –

There is no local ether action – yes
except one general action of the Universal
atmosphere limited by agitation –
Then Comes liquids there is Chemical atomic
action, then comes solids having atomic
action – Some groups are different
they have mass action

It's evident that the changing rate of $Ni(OH)_2$
diminishes very rapidly at a distance from the Contact
on account of the high resistance of $Ni.O_2$ –
+ good dielectric is essential
When the voltage at extremities of grown
reach a certain point no ionization Com
take place, Distribution is highly essential.

Capillarity so the damp when pack to 1/Cm
datum thus o pushes the previous pack

Have Hallowed when I reduce charge +
discharge 5601-2-3 at constant
Voltage, + compare thus on same
sheet when chg I also at Constant
amperes

In chg + battery the have Concentration
Voltage – gas voltage – Capillary Emf
Voltage – Against the Current,

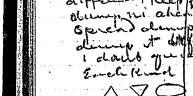
T
U
V
W
X
Y
Z

When get north get 1/4 inch glass tube + flake + NaOH feed + drop in about 20 times the ring then fill the whole + see which is bottom layer grain or flake – Vary dumping fingers until the mixed –

Impossible

also change Single paper to feed diff + keep flake constant of dumping in also Even + Column also Spread dumping out + then dump it differs + effect all in 1 flake you like – make groups

Each Kind



Interrupt feeding

pour NaOH thin polished roller to flake it so get it fall smaller flakes + also Convert flake if it fall too fast

Fusion of Calcium Carbide with only dropping pieces showed gas new research –

For fluorescence + giving light by Scratches, fused Diffication of metals,

Can crystalize under pressure by concentrated solution in one of U shaped sealed tube CaC Calcium crystals only on the other + electric current + to make hydrogen plat + Cu Zn or other polyatomic poles or Calcium Carbide in the CaC2 Can probably use a small U tube attached with dry air + air space so compressed in air serves as index of pressure –

What is principle dissolving Silicon Carbide by HF flu acid

Nickel drum plate Co polish Rotate with Cu solution – plate Nickel as thin as possible to – get Coherent sheet, by cooling out Cu see if can get transparent like in Vac –

see if Res thin wires of Iron in capillary

Kaulrausch method effected by Rays

V
W
Y
Z

Thermo cylinder

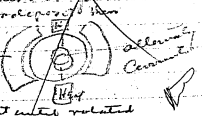
Combo wire placed with this without grounding the 13 is

14 inflash 12i in strips around cylinder of non fusible - grounding the other then flash say 36 i

then poles of Hot & Cold water or sediment heat + cool under -

for strengthening out very high frequency oscillation with Thermo Electric used galvanized Silver or aluminum metal or from the oxide only already by electric deposition from very aluminum Silver - C.P. materials

perhaps a thermo dynamo can be made without differential metals by crossing Cons of Cu & with Cu by Vac deposit or electro other metals fused to second electrode by electrodeposition then



no current until rotated

practically one use of another metal into make heat and unsew -

How much Zinc ox must be drawn off to raise the charging Voltage from 165 @ 170 to higher - Can they thus by pulling in Zinc O + sink 24 hours + Chge - see Curves - this will take off the impurities that raise Vol. Voltage

Either can prevent coming off from changing of amorph Sulphur to Rhombic Crystals -

to Vulcanize or sulphurize used Chl Sulphur, a double Sulphur unit to spare takes up 66% - use by on Copper for thermo dynamo

V
Z

Try Selenium & Tellurium for thermodynamo
also Selenium & Tellurium on cylinder
1st plating metal, Cu

Cu
S
Cold
Hot

This looks very promising

Dry Na_2O_3 : Cr_2O_3 : PbO_2

Try all quick strips with Se & Te between dif metals -

Selenium all only 0.001 thick. Force fed copper
Coated chrom with Selenium also if it alloys
Copper was not tried it will not alloy for annealing.

Try the metallic form of selenium for chrom recovering point -

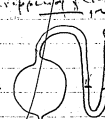
Tellurium Combines with Sulphur press H-S then Alkalies sol of a Tellurite - when melted
Exhibits metallic lustre -
Thermo dynamo -
Recovery point - Red phos

also metallic or rhombohedral phos by heating phos with Lead -
Hittorf Pogg Ann CXXVI 193-
its a better conductor than Red phos
also formed when phos is heated under pressure to 580 Cent.

Thermodynamo try phosphides

as was done at first time through a layer of Magnesium oxide
Try plating flake by dipping Ni Cylinder in Magnesium Sol & blowing it with mag then back in Ni Solution again - try dipping Sr Ba mg true neutral or slightly alkaline perhaps oxalates strips then chrom by get report by acid

Try Zn instead of Co to form 1st film for chrom reducing by Cu for stripping flake off



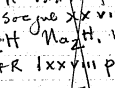
gas under pressure will X ray change it

Will light reduce Br_2O_5 or NO_2 ~~Silver~~ plate coated with gelatin ~~Agnos~~ organic $NaOH$ + Black dyes to Black + Top mind To light should reduce if organic matter in it (10) put in effluent - May want a reducer just strong enough to funnel works of light. Try it, if many

How about acetate feeder of Cr_2O_3

See Troost & Hautefeuille
Compt R. lxxviii p 686-690
Chem Soc jul xxvii 660
K_2H Na_2H. these described
Compt R lxxviii pg 660

Is chromic Hydrate a Conductor Try Kohlrausch
$Cr.5H_2O$



of it conducts see if as good as if all water. Compare ground to HCl. it forms at 100 C steel - Try Expand at say 5 C. both the Cr & HCl see if conductivity changes - hundred fold from 18 C down to 5

Polished Aluminum plate in dry chlorine slide coated photo on it. Cl under influence light Sunbeam with the cl - at bright spots.

Plate with gum gutta-percha on another in film left in contact - Turpentine - put in chlorine of dry Chlorine Light Camphor Cl Ozone Turpentine Then paint added on & mix & wet.

Lead Peroxide or wood ash, dissolve it cleaning in NaOH, Al_2OH.

Use Iodine Little Turpentine of Lamp or Petroleum. Where lamp is sealed into a vacuum bulb.
Iodine Dry 18 Long heat - then air dry - then the part of the Conducting of light will not go as good

Perhaps Iodine which Conducts & slightly could be used as the Aluminum between plates of S.

If with several embedded wires dip in H2O varying for good electrolytic conduction to power - suppose we take 1 gram per 100 cc of good Salt + then add pure salt + measure by until the [illegible] Cards as the good salt at [illegible] leaving what will be the relative amount in solution —

Heating a sol increases hydrolysis

Long tube 1 meter - platinized wire all same dia platinum terminals always same

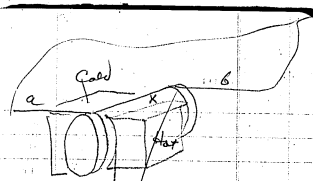
High Vac X ray stage

Use sensitive thermo inside

Connected to gal thermo platinum wire -

Heat one end of wire by current 1/10 of the length + determine electrical time lag

Conducts along wire to thermo —



Cylinder of copper platinized Coated Copper all but 1/4 inch at Each end Sulphurized thoroughly + Cut a 6 cylinder brushes —

Try Nickel plates between which is 1000' layer of a sulphide of a metal - use hot + cold water + also material of plates use Fe graphite gold plated Copper, chromed, colloidal bismuth, phosphorus, oxides. Move that are black + also peroxides - dialyzed

Make a collection of coloured chemical compounds pure in collodion tubes arrange them around an X ray tube & let them go for weeks see if any change — S Iodine Hg S Etc —

Use another X ray tube assemble around so get some strength the fluorescence equal 1/2 of Ead fluorescence with thick lead lit tube go on week then test for fluorescence Eye & Roentgen tube = Still not Ead — Tube —

filament. dip in graphite also argon coation of platinum finely divided metallic tungsten Cr - Mo Vanadium, Carbonyl in Nitrogen in Hydrogen

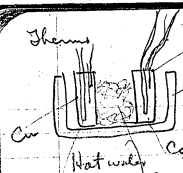
Platinum Wire metal flock film in Vacuum deposit process press Wire to an electrode use new silica tube white hot with Hydrogen C.P.

on the theory of thermo Electricity Kolrausch Pogg and C. vi. 661 & Oj Lodge Phil Mag [5] vol 2 524

Compressible lead oxide = Pb Cl O Conduct slightly at ordinary temperature without electrolysis & red diminishes heat nearly up to the red MP Wiedemann Ann Natural Compounds Lead dissociation.

Conductivity of Tellurium
Silver = 100
Tellurium after fusion very slow cooling was 0.00435

Following in descending order of Conductivity of Chlorides at 18° C
MgCl - KCl. NaCl Li Cl. $CaCl_2$ $BaCl_2$ $MgCl_2$
a maximum Conductivity below point of solidification shown by $CaCl_2$ $MgCl_2$ with the others Completely pure increases conductivity with temperature in various degrees KCl increases equally in proportion to temp constantly and = $BaCl_2$



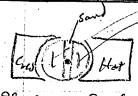
All the diff. oxidizing solutions all kinds, causes of Reduced get a thermo both poles same metal as electrolyte get no polarization - Hardly get thermo Current. If form bom among Not H & Cu) (like Storage battery) Can use Copper cells & plate diff metals on un Depends both -

Perhaps can use a Solution like polysulphide Ox & reduced by Circulating liquids no Energy wasted -
with weak Current for working & reduced may be reduced

Ferric to ferrous without deposition metal on increasing Current metal deposited)
Can use the cell kinds reduced with salts which form ic & ous salts or gently circulate liquid
without circulating some ~~into the region of one cell~~
what is better reversing the heat + oxidize what was reduced

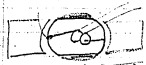
Mg electrode in KOH.

possibly Manganese can be deposited from KOH on Mg Cathode very Cold & dilute —



Rotate

Electrodes Carbon — 1C + one
Salts, rotate + Commutate



Alternate Currents

Chemicals for electrolytic Therm
Salts of: Cerium
Iron
Copper
Tin
Manganese
" Chromium
Vanadium
Hg
Arsenate + arsenite KNaLi
Sulfides " "
Selenides + etc "
Chromates + BiC
Ferro + Ferri

Potash solution or Na Li same
Metals with their oxides same
Uncleaned + fresh on 2 poles
Cu Cu_2O both poles
Fe & Fe red by H,
(Bi + Bi rods) "
Ag "

Reg M Fe storage battery from
forming both poles + neighbors
other
slowly changed — if now put
in KOH + one now heated
(to) the metallic the ox one
being kept cold. the hot
now will oxidize as it has
outside Energy + thus excess
will reduce the Cold
now ox to metallic
on Reversing the heat
opposite reports follow
+ We get a Current,
Copper is very sensitive also
This is only plating Oxygen
To + from like metals

With metals in high salts heating the anode ~~Cu~~ absorbs Energy + has more than gases out when deposited out Cathode get slf in Current ~~Nitrate~~ ~~Solution~~

With Copper in KOH.
Could use high temperature + concentrated KOH sol. as CuO not sol then =
possibly the anode which has had Cooled be rotated + got in air + self oxdyd thus helping the K_2

Its probable that I can employ temperature up to 500 or 600 fall on both sides of Cold side if kept down to 40 or 50 –

May not phosphorus — Alkalin Earth Sulphides be due to change of Sulphur from Orthorhombic to Monoclinic + wonderful Selenides of Lime Sr + Ba be some more sensitive or phosphides of which – Think Calcium phosphide can be made white if lime pure + then fused up cap no volume away +

In all these experiments a diaphragm must be used to prevent Generation Currents + thus loss of heat.

---

possibly Sulphides will work better than Oxides in Sulphate of Potash – Formation gives the sol + more quick –

~~phosphates~~

Bi	+25	Fe	56	5.2
Co	9	Rhodium		9.6
Ni	5	Sb		9.8
Cu	1	Tellurium		179.9
		Selenium		290.0

Compiled from Bi to Sb – Bi to Zinc

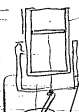
Emf or Voltage of of a
Bi Cu element is from $\frac{1}{20}$ to
$\frac{1}{240}$ of a Daniel with 100° C
dif temp. The alloy 9
" head Great thing each to pieces
look it up —
and frequent Cu Sulfide has
ten times the Emf of Bi Cu
Couple according to Pouillet

for electrolytic Thermo
Castner Cell for KOH Sol.

K_2 transformed
Non Hog —

Sun or heat mole

light



phosphorite on Copper Sulfide forms
a black phosphide not affected by
air "metallic matter at Red heat,

Cupric Sulfide made by acting
on Copper by S also in CS_2

For testing of Electrolytic Thermo
use

then Electrodes ½ day keep non hung

Pop Element, under Carbonate
in Strong Sol Cupric K Cyanide
Thermo —

Ferro or Ferri Cyanides work on
Cu powerful oxidizer and under
oxidized KOH, with Thermo

Nickel plated strip from aluminum when Al ammonium sulphate used - as Al has an oxide on it can deposit the oxide thereafter from Cu sol. soda or phos. soda.

Try

Magnesium anode & cathode in KOH, that other Cat. may give Eminent also all Hydroxides or Pure KOH work

Aluminum Cathode & Anode in Salts -

Theory - If Electrolytic decomposition OK Then Salts dec in K_2O The radicals all Chrome + Metals all fine - The wind Sp. gravity coking Al_2O_3 filter wont last Radiently there is electrochemistry

Try Telephone Transmitter Bright Sulphate Copper 9 hrs some rubbing on anthony also Tellurium in primary cold solution

If a good thermo Cu S touched body - get high voltage or Constant V + high Current than Mechanically transfer 2nd Cu S to another Colder Cu S couple then those 2 to 2 more until all the heat pulsing by to frequent radiation, upon this theory - it looks as if 50% of the Energy could be utilized by some small device

Ascertain if constant gives higher V at + then falls, working on Constant when 6 hr loses as much heat as I receive also if there was great Heat or Current Focusing

possibly a wheel form of pile, buried in Rocks not or a Vacuum with the electrons walls + focused through a section of radiant heat

Radiant heat

Well Cu plates finely divided
Coated Insol $CuCl_2$ [illegible]
in $CuCl_2$ on charcoal [illegible]
reduced to Cu in [illegible]
+ Passed to $CuCl_2$ [illegible]

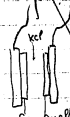
Ditto Cu plates finely divided
Coating Ferroxyl of Copper
Ferroxyl - Slag [illegible]

Copper Electrodes finely divided
Vacuum oxides on each
Sulphuric acid or a Sulphate -
one reduced up other [illegible]

Bi & Sb powders pressed
in Ring & wound with
wire ought to convert
from Tadpole + rings
also the 2 oxides reduced
by H,
Possibly alloy -
CuS + Cu same thing

Cellulose of fruitful soaked
~~in water & [illegible]~~
pressure Carbon pocked
the Tungsten - or dipped
in Carbon S of with WOCl
the CP Vacuum H from Carbon

Fluorspar CaF_2 becomes
phos by heat possibly the phos
in ores at Tobam.
see what effect steam
+ by Electrocellulose +
heating at same time



Before Cu $CuCl_2$ } no [illegible] doubled in
Ruins $CuCl$ Cu } Electrolysis - use
Thermo dynamic - the Bromides & Iodides
acid + Oxides of every thing which can have
metal reducing + the [illegible]
salt in my [illegible]

Can make by Precipitation
Contact in Vacuum Oxides

Try all the crystal shades by flash light. Mg powder in nitrogen to test Carbon arcs burning sulphur - Iro.

Moved cylinders of Oxygen. Mg then boil of MgCl will dissolve out leaving MgO powder. Crystal still fabulously fine - try Zinc oxide another oxygen -

~~Prep~~ ~~Lead~~ test chalk, Eng LiOH NaOH, NH_4 & alkaline salts of acids - ?

Water, Carbon make spongy p/w not touch 1½% KOH 10% K_2CO_3 -

Ditto reg 1½ spirit Reg Mon Tempered lightly with Red Cy Mond - ~~[illegible]~~ 4 ml Ether -

Make some precipitate Zinc Sulphide for fluorescence with ZnS self in metal - Tetany thermo. Zinc phosphide metallic like -

by using a lead cell as chloride of lead that one side a cathode the other + removing cathode into a mixture of metal + [illegible] fully in hot water the current reduces the metal to metal or even vapor

PbO_2 dissolved Cu sulphuric acid to oxygen liquid as only decomp on boiling giving O. ? Thermodynamics

Lead Electrolysis Sulphide lead. Electrolyte H_2SO_4

There are lead sulphides lower than galena PbS - they are Pb_4S Pb_2S made by fusing finely divided galena with metallic Pb - low galena Pb_4S Pb - galena Pb_4S - heat - most active chemical compounds of dense Sulphur compounds Pb_2S formed

Copper pass Chemical property ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~

Hydride Cop - decomposition with HS or Hydrochloric

The formula when such a mixture of hydrophosphorus acid not higher than 70° C thermo

Thermo. Cu polar Cu_2S on 1 CuS or Cu-other on heating CuS decomposes to Cu_2S –

Electrolyte Thermo
Sulfacid Antimony
high + low oxides
Neither Sulf H_2SO_4

~~Antimonate Copper~~

Copper at 0° Cent forms a peroxide decomposed at higher temp.
Can't this be utilized.

Try Ethylate of K in butyl
K O Ethylate K
K O Methylate K
Ethyl O Methyl Ethylate of Methyl

Jan 16
Vanadium Sulphide
V_2S_4 black used alkali
alkali sulphides or HCl H_2SO_4
also Hydrated sulphide
on precip in H2S but
gris black not clearing
on drying unless with
Basic metallic Sulphides
forming Sulphovanadates.
also V_2S_4 black stable
form Sulphovanadates
above for electrolyte Thermo

Sulphide from Magnetite
may give rings for high
Conversion or oscillations,
no breaks or long of non
lines,

Precipitated Magnetite of
filment, it comes to high
res –

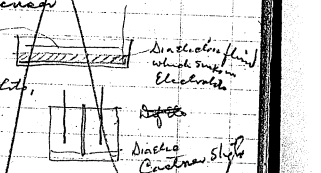
as aluminum poles in Vac
don't carry all metals as
generally used in Spark
tubes - it showed not as a
Rectifier for Wireless for
Emg + other Receivers which
might invert Direct Current,
rules at that degree of
Vac that was lowest
Reg,

Have Dally see if he
can seal quartz with
Lead glass or other
glass for Vacuum Experiments

Try in tube with reflector
put cup Carpichy Porous
it might possibly get to
CuO_2 hydrox or hold
there at Zero with
9cc of Hot H_2O & other
poles -

Thermo Electrolytic
perhaps may be bothered
when heat + Cold poles
with Thermo Current at
junctions where I use
2 liquids Compositely
utilize or multiply it of
bad Cell a 3rd liquid to
2 Sandgartitions -

Condenser



with Coolers & of Electrolyte
& Diaphr might get
interesting results with strong
Currents -

Phenethalein die in the Diaskeuo
a Reversal K & Cl as zero might
show K + Red at junction of
Diaskeuo try a heavy
Condenser dipping or current
Thus would show really what
are primary reactions in
Electrolysis - If the
Radical say ethyl was
Col in the Diaskeuo
We might thus work
Electrolysis Everything
With Tetra Chl Carbon might
possibly transfer Cl &
Substitute K. -

It may be possible that
Reason liquid dielectric
not Conductor will that
Cannot make molecules
transform between a
solid & a liquid but
can between liquid &
liquid -

Try say Ether + chloroform non
conductor which dissolves
metallic Chloride + salts -

It possibly Thermo Current
phenomenon has something
to do with allotropic
Change from Amorph to Crystalline
which also Illumination phen
will show fatigue
Can test this with Becquerel
Cus. & Pellerin. +
probably Effect Light on Se
because they take X ray luminous
which the amorphous phen,
Chlorine is a peach in
this respect, it quick.

For Fluoroscope with
fluorescent Oxalate Ca
will need Decard
Lense - to get
vector through

There is no reason if get rid of emulsion why Kinetic pictures Could be taken 1/8 of minute & Lumiere's present one perfectly a if not direct could use pyrometer & print it 1/8 on non emulsion film

Possibly Can take 2 of Ray Nitz Cell & oppose them changed so they are equal then heat one, this would give no Current in outer circuit & then by reversing heat the other will recharge the pyrometer heat one & so on calling the power entirely from heat, ? —

Perhaps Nitz storage is not best form there is a hoard of Experiments, Can be made on this principle

Crova did this.
Compt Rend 1 xviii 440 —

Test for organic matter in alcohol just that with Kjeldahl method

If alcohol Coulson or Lumiere & Lumiere grazing or any other reducing agent in the KOH alcohol it

Momentary Contact of one metal with another one hot other cold - ~~makes~~ makes what slip in volts or perhaps it makes it clean & molecularly part in Contact or film deposited also by film of Excited by Thin by burning in air Kinds of plating & show tools & giving it a 1/10 second blush

Something artificial Sulfide Copper, water, very probably of from $Cu_{10}S$ to a high ord & will go CuS_{10} or so also another $Je S e P_1$ — & alone in every proportion

Thermo current I may be due to a slow cementation effect. say CuS & Cu heat produced causes the CuS to segregate into the copper & sulphur the CuS to Cu_2S & effects in the reason, than a vast number of experts permits passing I thus the joint causes recession of the cementation effects.

Lithium is a metal which very little has been done yet it is wonderful as so. Close to H which is whole basis of acids & alkalis — introduces this metal & salts in all kinds of experiments look not for ore & process produce cheap — all ore brokers for Lithium etc.

See if $Mn(OH)_2$ dehydrated to white MnO_2 by heat KOH 33% will boiling put in KOH with $LiOH$ becomes hydrated & active & then boiling go back by dehydration of Mn_2O_3

See if old I 13 bad plates is made good or better by soaking in cold also heat $LiOH$, alone & in KOH

Thermo electricities — Take 2 Fes which have been designed to zero. Heat one. Then might carry out that latent chg which comes out by heating & change the other. Then reverse etc.

Dec of KOH dis ferric or ferrous ox gives – also strip deposited on Ni strip when Cathode + Reg Fe product anode in KOH.
21 27 + 33 –

Camphors of CuS gradually deteriorates in Vacuum amp etc, by arranging a pour on steam paper + other cuts water paper + measure once week –

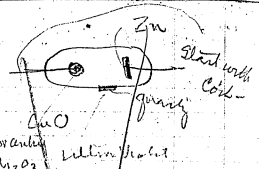
Dec of Crystals also KS in more KOH in other –

Thallium or Manganese Arsenic or Fe are weakest elements for Sulphur + Hg or Cu as strongest – may give an ~~Hom~~ Electrolytic cathode possibly Na-Li or K Sulphide for electrolyte –

possibly there are an endothermic sulphide, a Bi or Disulphide – This can be ascertained by Experiment + use the already KS + not the dissociated alcohol by Calles –

Connect to earth a wire tray at end not Vac X of higher – Hg are Quartz + Connect with the Ether

~~Dec~~ Use X y z + other Recovering instrument + allength connection magnetic and wire etc why be oscillation in Ether Dissolve Wireless –
Oscillation Sunspots



Cell with alum. dif electrodes
plain & gauze on Heat trap
lumen to 2

Transparent Crystals
Contacting fused salt
one impedement fluorescence

Crystalize in Vac H_2SO_4
to absorb H_2O

If KOH Takes out Silica
wash by percolation hot
MnO_2 fine or not crush
by Hot LiOH wash out
LiOH & run Reg KOH.

Have Hinkley design a
~~pattern~~ wheel running
~~Pressed to~~ good surface
Vel or mixer to throw
powdered Coal
Export with it. Cut out
solid - possibly feed
from Center or periphery
Capitsing wheels

Dr Grothe, assay bad
Cell KOH & then bad
Cell LiOH, LiOH alloy
running the Cell good
sp what it does out

Got some big books marked
to Entles Experts also
Record of Tubes 7-2
& special tools also Experts
Record
Order 2 dozen - all
uniform under thick
best paper - lay flat
Every - Special

When I went away South
I left 2 or 3 more
which had Copper on
account 6 x 6 they were
on desk in tube room
unassigned when they
were prepared not left
Cu 72 Pyro -

Take 3 of the pyro p-69
that has fuse in + gone
low - take out & look out
KOH + dry them then
put back 4 oz of some
up - also 3 run in
21 g KOH 2 grms LiOH,

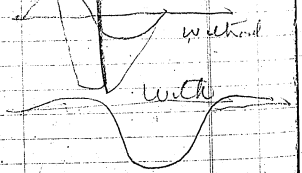
Metallic arthrium + Bi or
Nickel having lowest spec
heat in Queens ought
give good thermo
Current, Radiation
only usable -

See of X47 at recalescent
point of iron - vibrate
heat above + below
the point, Quantity glycerin

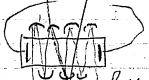
Some of the results of decays to last Pick out Inf at diff temps — also heated nearly to melting point — Heating in Black Box — cooling —

showed conduct & or Energy

To changes alternating Current pipe circuits of Co plate, 300 or 400 volts cccc — put in amount

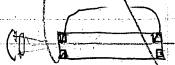


2 Electrolytes porous partition heat junction —

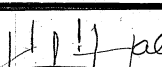


Reflect Radiant

Hi light across electrolyte get fact ~~[illegible]~~ diff metals plan + placing solution etc shutter — Hg Arc Sun Carbon arc —

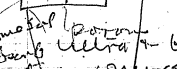


tube — allength light 1st one end then other —



alum

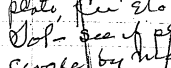
Somewhat porous
coloring ultra + blue green
Elo —, mixed with
plating Solo or non
polarizing Solo



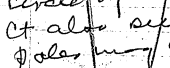
Silent discing Nickel
plating Sol strong
Make films!

Try smoke ring
for throwing Copal
in figures

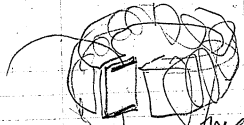
non conducting
smoke - polished Cu
plate, Cu Elo plating
Sol - see if plate
circle by micrometer
Ct also see if
poles run / Copy at
hole changes it



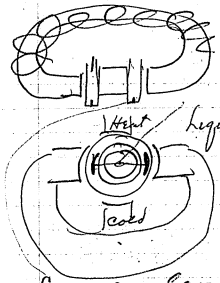
sand
heat
Cu plating
Sol.



Earth insulated
Change Earth plate
from one to other



Mag
perpendicular
Cell set Palas
mag - heat + dissolving
Red Electrolytic
lines want to form
but have to work
against repellant
force Mag - plating
etc Solutions



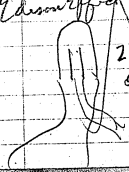
Circular glass jar -

Dec of Edison effect is
affected by magnet
if demonstrated (Hg absorbs)
by Sulphur, by iodine
Excess of Hg - Tin amalgam

Dec of call with 2 also 3 grams Lithia 21% KOH in affordition short chg hot flashes or chg Cacs also bat also 15% NaOH, 2 & 3 gms LiOH. —

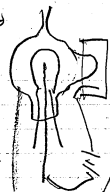
My a valuable Spiral continuous Ct & allentoin on photo plate

Edison effect -



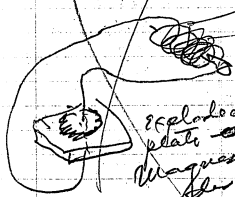
2 extra wires dec of a battery Ct go thru

also



Battery Cell

see of Young & Early phenomena



gal

explode on plate ~~at~~

Magnesium powder

Try a group 1/2 in with plunger just as above but it will work.

Dilute Electrolyte

projection of ion showed but N or P gave a ray use Collodion held Cathode + anode forming part of cell -

Try Slurry with Silicate Proto & Iron also Proto Silicate. When + together

Potassium Ox is reduced by H at low heat whereas Lithia is not reduced by H or CO

Sol of Li_2CO_3 0°/Cent
100 pts H_2O dec 1.539 at 10°
1.406 - at 20 1.329 at
50 - 1.181 -

Heat of formation

	M_2+O	M_2O+H_2O	M_2O aq
Li	140 000	13 000	26 000
Na	105 000	35 400	55 000
K	97 000	42 000	67 000

Berkeloff says Lithia must be an unstable oxide of Li.

Try of Crater of arc light Carbon - Bort Diamond - mixed with all kinds metals & compounds to make Carbonado

Try KOH + NaOH
with LiOH, trace of LiOH
dont make Sal from
lead —

Have Hard sand
10 lbs of Chalk after
Parson Rolls —
dilute Chunks
from grinder —

E Schaaf - Rzgelman
17 State St
Batty Peak
NY

Spodumen 30 00 ton
Lepidolite 35 "
Columbiyaonite 45 "

Spodumen

SiO_2	63.4
Al_2O_3	28.22
CaO	1 54
Na_2O	2 12
Li_2O	4 To 6

Lepidolite.

SiO_2	48.61
Al_2O_3	22.36
CaO	00.64
Na_2O	00.38
Li_2O_3	4 to 6 %
K_2O	16.16 %
MnO	2.05

Amblygonite

P_2O_5	46 to 48 %
Al_2O_3	32 to 34
Fluorine	4 to 10
Na_2O	0.4 To 1.5
Li_2O	6 To 8 %

Only determine
Solubility of Li_2CO_3
in 10 15 % NaOH
+ 15 21 % KOH.

Historical Survey of
Crystalls Luminescence
etc 800 substances
show light when crystals
crushed —
Zeit physical Chem
1905 Vol 53 — 1 —
get.

Try Balmain paint on plates neg
also oxalate di - to
permit of quicker exposure
etc

Put up 5 flat plates
21% 2 grm LiOH 21% KOH
5 with 15% NaOH. 2
lithia —
5 with 21% KOH.
2 LiOH. 1 grm
aluminum —
5 with 15% NaOH
2 LiOH. 1 grm
aluminum

Old Cells which (tube)
wont come back with
LiOH, heat them
long while —

See if my neutral
Sol Salt of Bismuth
to dip tubes in —

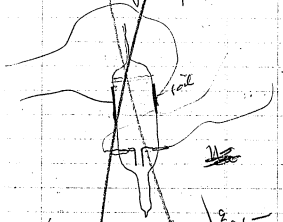
Allan's Cable 1/3rd Microf
+ 33 ohms —

diaphragm of phone with
1/4 hollow metal
ball center charged
Carbon only + vibrated
piccolo near another
tried by see if get
Columbia Current

Alloy all Kind with
Mn Cr + V to get
magnetic metals

get pair 2½" disks of agate & grind precipitates in them with to increase solubility, as colloids many from like Feldspar & Portland Cement to prevent action & give false solubility probably large number of metal salts can be made advantageously soluble by grinding for many days & probably a Compl. process for K & Li from Feldspars grind under water probably made like paint mill

Na Li K Ca Sr Ba
in tubes, def wires
& opening only by Capillary
tube very fine let gas out
DC – long time under
electrolysis to get
nature of deposit.



also Mag. field & Stress
field – might get Hg & Electro
X ray & Radium –

X ray

Na K Cs metal
heated get vapor
long continuous exhaust get
Copper a la Rapsway

In Rectifier
All Sol'n Salts Aluminum
Formiate Al, Cyanide K Na Li Mg
Fluoborates alkalies — Phenolsulphates alkali
also methyl alkali
Experiment with old
pockets that out of
Cell giving only 50 amp
Soak 5 pockets in
1 OH. 1% 5 2½ 5 3½
5 Saturated 5 13%
NaOH. 2 LiOH 5 13½
Saturated L. OH. 6 hours

Duplicate all previous
Hot, 64 hours —

Rectifier —
Carbonate Sodium K Li
Mixture of same with
Each other also. Mn Zn Al.
Pb described — the Carbonate of
the alkali —
dilute phosphate Li —
" Arsenates + other
metal Ammonium

Might start a Campaign
with groups 1 to 2 times Ms
with the chemicals in
Solution and known not
to affect the Ms to see if
Can raise value of the
Tests dummy Chg Voltage

possibly Current passing thru a cell. Notes the Molecules like wise arranged.
Try of a strong current in a cell shows any disposition to attract any metal or Compound placing on fibre silk under ball in or at any part of the cell.

See if water Carbonic acid Conducted by use of any Electrodes alloy or amalgam also with Good Electrodes Expand the use of Magnetic & Steam Heat Light, X Ray & Rays.

To test if H_2SO_4 from dissociation of hydrates. Test Dielectric Capacity of dry Sulphur with bottom glass plates of a Cell. also Viscosity - Micro Capillary Tubes - also Capillarity -

also Compression

also absorption Spectra with dry Kinds Light -
also change of Color -
also flotation of most gases
(c) Electric Time -

Try fatigue of Quartz Rock Salts & also Hydrochloric Crystals to various Rays.
also reflecting & absorbing powers of dry substances to Rays -

Diaphragm Ephemeral chamber mirror on center line
See if any Vibrations in Barometric pressure during Normal & Thunder Lightning etc.

See if any Crystals in permanently fluorescent

Dr G to make fluorescent Crystals plain & colored with small % impurities. Say Cupro-cyK with 50 or 100 diff impurities in 2 in dif %.

Get some Exhaustively large Crystals of K Stalks Hydrated & only.

Selenium B.P. water
KOH etc. of ich
amyl & Cyl acetate
on top.

powder up all kinds, homogeneous Crystals + use pulverized steel mortar & pestle on blocks dry & with various amounts moisture to get Experimental plates

possibly water vapored conducted if it was diluted Enough by a dissociation hydrogen into like a Vac tube. Try CP Hydrochloric with water shaken up with it + poured close together.

for discoloring green out tubes try NH4 + Sulfuring Carb NH4.
also Hydroxyl amine hot.

see if the solid drops from an old tube so softened up by LiOH. or LiOH in Na + KOH.
Something looks like flakes + green Sloughing

Dr G take old tubes
selenium S1 Te Hg al 2 U

great idea

The rapidity which tubes go bad is in proportion to Concentration KOH. Heated for 2 months in 33% solut. but grew — therefore injury is due to action of 33% on the new Rubber stock in impurities. Therefore take a 33% cell which has run long time put in fresh 33 + a new tube see if it goes bad as quick

Take Reg mix boil for several hours in 33% wash well + use Reg with New tube in 33% + have Dr. analyze the KOH from boiling (Metal dish)

also another lot boiled put up with Rubber, + which has been boiled with 33% several hours

Dr. Y (229) tube 6131 fully chgd contained
KOH
0.357 KOH

NaOH
Tube 6135 discharged tube gave
0.409 gm. NaOH.

Tube 6136 fully chgd
0.267 NaOH.

KOH
Tube 6130 discharged has 0.512

This shows that an discharg KOH tube has 1.95 } more KOH
NaOH " 1.42 }
than in charging —

(Thermo Surrounded)

with helix —

See if Current when
iron wire or any
wire of metal touches
a strong mag (20)
Current gives out
including — close
of metals Land on
mag ~~when~~ never metals
vary with a chem
touch with another
metal use galv
See if Current already
or momentary by
Mag on — off —

Make group
12% NaOH 3 grams
LiOH.
ditto 11%, 4 grm
LiOH.

Ferric hydroxide
Leave NaSO4 in sol
in after pound off all
Can this gelatin 33⅓%
12 NaOH boil out it
anthy — Redtree by Hs

Holland get Ferrous No
sulfate or Ferric ammy
sulfate now 4 N
a 13% NaOH 3 grm LiOH
test Economy of iron

Holland select one bar
E18 a wire 21% 2 gr LiOH
9.0 soak 6 day then
run it another boil warm

Make Saturated Sol of good Crystalizing salts then stir w/ Hot Water & getting precipitate out Let cool while cool off & Crystalize - separate by Hydrocarbon etc Disposition —

Saturated Sol Hot & white hot pass powerful Current thru while cooling to see if change & also in field Mag & Current - try Phos & Fluorescence & if any salt fluoresces

Verify this Vacuo deposit metals & note absorption Spectra & other Spectra thru them —

Valalulyz Subliming Chemicals through heating also Magnet field - also see if it effect rate of sublimation etc —

Cores of dif Metals 1/8 dia thickness wound fine wire & Separate gal Ewy & X y z Rectum Welding Rods which hot wire dif metals see 1 & 2st Rick

Emg – Mandrels
plated all kinds
metals – alloys not
plateable be burned
out metals –
where impossible –
use modeling mandrel
& make contact on
~~ends~~ Ends even with
irregular pieces –

Emg use Condenser
Make Measurements
~~with~~ of V + amperes
Limit all sources under
Various Conditions

Use cylinder Emg

Hydrated Impalic
acid –
silicic –
phosphorus powdery
acids –

Cylinder Filamentaphos
Lead – Na
amorphous arsenious
acid –

Sol of Li_2CO_3 gr

15% KOH. 100 cc saturated sol
Coulom 2.443 gr Li_2CO_3
equiv .991 gr Li_2O

15% NaOH. 100 cc saturated sol
Coulom 2.475 gr Li_2CO_3
Equiv 1.002 gr Li_2O

21% KOH 100 cc sat sol
2.714 gr Li_2CO_3
Equiv 1.099 gr Li_2O

Make group - 10 NaOH.
saturated Li_2O
" 6 NaOH
" 3 "
Li_2OH alone.

24
168

group 10 dipped in Bismuth
Solution

Dec of that basic sulfate
from the Rubber (yellow)
to sol in hot NaOH KOH
particularly in LiOH.
It probably the stuff
makes bad contacts
inside pocket.

Try determine Viscosity
of 21% KOH with 2 gms LiOH
in 100 cc
Ditto 15% NaOH with
LiOH 2 gm in 100 cc

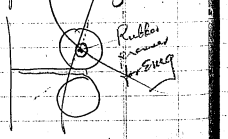
Group 7 flake 17 green
Round the corners.
This will give me no 10+24
but more sections

See if Conductive Electrolyte
is same by Kolrausch
approach when diff metals
are used, try LiOH, + these
all temp. relations

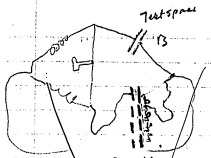
Take 2 out of one of the group
of 9 grown + with 15% KOH
+ 2 LiOH
+ 2 in 21% KOH with LiOH. 2 gmm

Possibly burs showed not so
ground off so much so they
will hold mix after scraping
Try OCL make 1 doz tube
burs not ground so much

Try No 2 grown in beef jar work

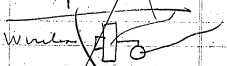


Test spoon



ac = X

use over Condr X
also B - Galvanos + then measure
in B all kinds materials
Hydrides + oxides, Freezes
powdered Crystals etc
first ~~Observer~~ Capacity
+ other phenom use
telephone



point very slightly on
slowly rotate, when closely
heat comes fusion bite

Try group 18% NaOH 3 LiOH. &
Saturated with Thallium Hydroxide.

Ditto. 13 NaOH. 3 LiOH. 2 saccharate lime

ditto 13 NaOH. 3 LiOH 2 saccharate Ba

ditto 15 NaOH. Saturated Thallium OH

" 15 NaOH. 3 saccharate Ca

Smg Aluminum Cylinder
put go film on & let
the pressure food just
rest on it & don't
leave [illegible] & try

Al Reflex Alford
& paper like Cardinal
& Radiancy Surface

Al Reflex Sol with
Reduced [illegible] at Cathode
copper at anode & then
slip loss energy

Dr Gratho foil above No 2
gram in 5% NaOH & Saturated
LiOH, wash & dry

Only test No 2 gram for
S.O & Carbonic acid.

Tell Holland to test
tubes for efficiency 75%
of their max capacity
on long chg making
of the coarse wires do it

Dr Gratho det Soluble Thallium
Hydroxide in water also
in 15% NaOH 21% KOH.

Crook Thallium Proc Royal S.
X X 475 -

Oxalate Thallium for fluorescency

Thallium salts, inorganic
delicate test ozone
H_2O_2 Urea Iodide KI +
starch = Elec pen
Chem Reading

Thallium salts remove
daylight =

15% NaOH 100cc Sol 3.295 Li_2O
5.269 LiOH

21% KOH " 2.858 Li_2O
4.573 LiOH

15% KOH. 2.916 Li_2O
3.668 LiOH.

10% KOH. 1.822 Li_2O
2.918 LiOH.

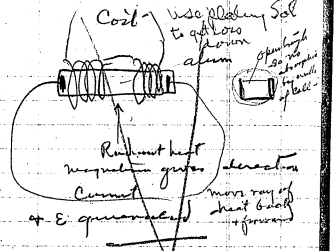
Saturated Solution

Sat acct of Strong LiOH in 21%
Carbonate MnO_2 be stable it
will be good or Thermo
Electrolytic Conversion heat
cuts 2 —

Holland determine Capacity
21% Saturated LiOH.
at Various Temperatures
upt. 212 — OK
also NaOH, 15 + 10%
Saturated LiOH.

218 1330 cc 285 of which
goes on plates.

perhaps green will
go to MnO_3 If a cell
is heated + ~~[illegible]~~ LiOH
works. this would be
good for Thermo Conversion



CO_2 is not a good absorber of heat but when the source of heat gives CO_2 it powerfully absorbs therefore in above experiments use sources of heat which certain are chemical which is also in the liquid absorber. So look out for useful metals for Cell Contains Hot walls etc + have the absorbing

liquid Contains the metal or if source heat used the CO_2 must be in the liquid or if flame fed with N_2O then have N_2 + CO_2 in the absorber so the electric spark chrome 2

In all attempts to Convert Heat into Elec use nickel or alloys as in no other way can it be done. This broad fact has been left out by Experimenters

With ordinary yellow & red light use absorbers of dye respectively to see if the yellow red or yellow violet light causes the fluorescence by high amplitude yellow red might do it.

Use of Carbon Tetrachloride absorber or effective filter

Also experiment on forming a film with Carbon Tetrachloride in back column of —

Use of chloroform and camphor as a solvent for film stock

also Chloroform and acetone or any of acetone which would do. Dry Chloroform transparent solid

As Kodak does from film stock use of weak solution running film with acetone on dropped in instead of concentrate so then dried to concentrate of then film washed out ought to check film to gelatin!

Try effect stock dry by Cone Arsenic acid.

Have Howell flasher

Tetrachloride & Spec

Lamp

Dropped tubes.
6387 – Bismuth fluoride
6388 – Formate Bi Con Sol
6386 – Bi NH4 Chloride
dissolved NH4OH –

Note Formate blackens the tube but not the grid –
probably only blackens the green in halos or clusters
green outside of not
then the tube must go
badly plated – black tube off
healed green in formate Bi
it dust blackens
Here is a case of bad plating & Explosion
why the over tubes
gone bad –

6386 9 notes after soaking
all night some of green
forced out blue halos
but only little, others
ok – 6385 has lost its
black color –

Arcing very delicately
suspended in fluorescent
for def Range of note if
it allowed anything
also delicately
Suspended & when
acted on by a
Ray X Rd Light Etc

Patched plates of gold
Platina, Etc lay on these
plates pieces of metal
higher in electrolytic series
than Bi - after long
contact develope by
penetration of metal
into the gold or Pt.
by means Core formate
Bismuth -

also use element
some figure 1/2/long thick
lay on plate + put other
metal over it. Then lay
it at ordinary temp it
throws off the metal to
the plate in a way figure
underdeveloping - also
more than one metal
may X Red Elec
Elec -

Formate Bi in gelatin on glass
ought to give photo - by
~~[illegible]~~

also metals in series higher
than Bi in electrolytic
series - spread on glass
through transparent now
exposed photo medium allowed
to expose by Ultra
Red hence no photo
could be developed
by using Formate
Bismuth the Glass
parts not exposed by
Ultra Red
Could photo in dark -

3 groups. Each dif
amount 1, 0 ~~pt~~ +
run clay & dis hot
to see lebrot amount
necessary to get good
clay also to get
Curve points, bot
2 gm. & 5 [illegible]

18
39
17
56 KOH.
59

23
17
40 nacl.

17
24

23

56
21
5
112
117 6 KOH made

40 | 56 (1400 (140
40
160
12
700
17
21

24 | 56 (2.33
48
80
72
80

1.4

15 | 21 (1.4
15
60
60

21

18 | 21 (1.8

8 | 21 (2.
16
50
5

9 | 21 (2.33
18
30
27
30
3

56 | 240 (4.2
224
160
160

5288	5.774
5289	5.910
5290	6.164
5291	6.009
5292	5.926
5293	6.042

5461	1.616
5460	1.539
5459	1.486

17
7
24) 170 (7
168

J M Tyborn

Ezuelequeby

37,200 Cuba

Dam Clay at Rice

Creek near paladka

Brick yard

36,997 (wat 65.8)

37,00 (86.5 avg

37,25+26 – about same

37,27+28 nearly in good

37,47-8 Erratic –

29,95 2080 dam 1407

29,96 2100 to 1832

~~1 200 dam~~

1 Firm Da Sulfate

16 | 1475 – 90

144

35

1475

90

1565

120

3130

1565

1878

75

9.35 12

30.9